

# ALBERTA WILDERNESS ASSOCIATION

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June 15, 2021

Coal Policy Committee: Dr. Ron Wallace, Mr. Fred Bradley, Ms. Natalie Charlton, Mr. Bill Trafford, Mr. Eric North Peigan

## **Brief From Alberta Wilderness Association**

Dear Dr. Wallace and Members of the Coal Policy Committee:

“If you aren’t willing to own a stock for ten years, don’t even think about owning it for ten minutes.”

- Warren Buffet, 1996

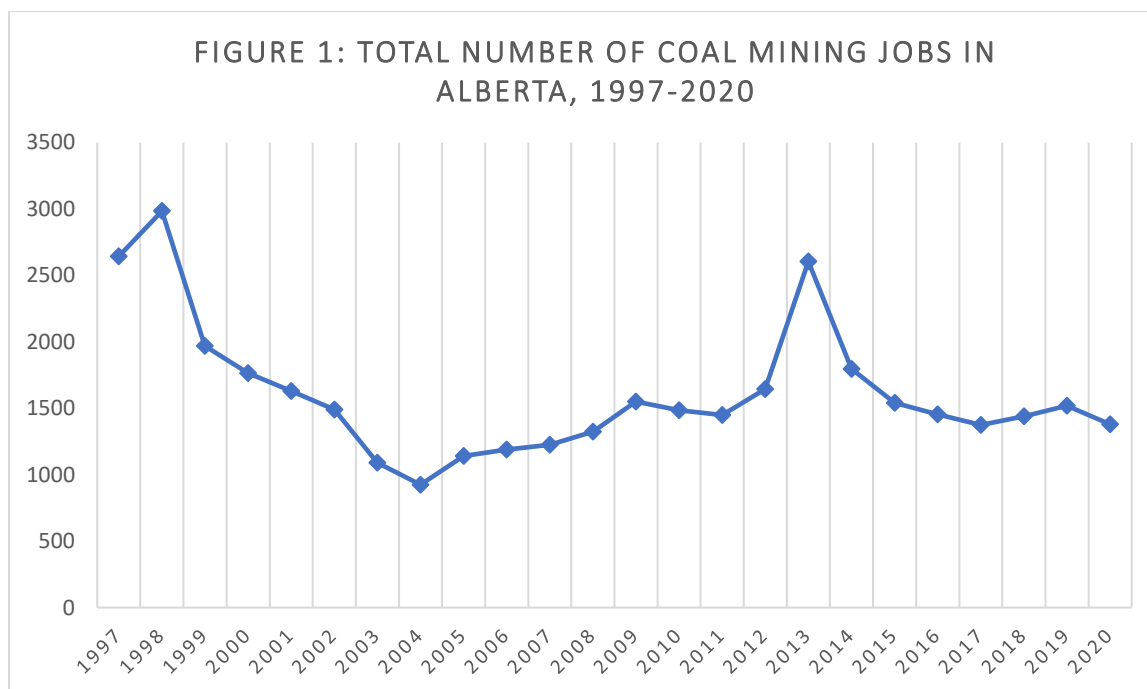
Alberta Wilderness Association would like to thank you for the opportunity to present the substance of this submission to you on June 9, 2021. AWA took the liberty in this document to add some thoughts here about reclamation, a subject that committee members raised with us on June 9<sup>th</sup>. AWA, formed in 1965, is one of the oldest wilderness conservation organizations in Alberta. Formed around a kitchen table within sight of the landscapes that concern us in this brief to your committee, AWA now has more than 7,500 members and supporters. You will find AWA members in 226 Alberta communities, elsewhere in Canada, and around the world.

In its first decade, AWA played vital roles in creating Alberta’s Coal Policy and Eastern Slopes Policy, policies that helped to protect the Eastern Slopes, an iconic Canadian landscape. This brief returns to those subjects. The tack we’ve taken in this submission may be different from what you would expect from a conservation organization. The opposition herein to metallurgical coal mining along the Eastern Slopes of the Rockies isn’t based on the environmental values and ecological services threatened by coal mining. AWA stressed those values and services during the Grassy Mountain Coal Project Joint Review Panel hearing (<https://iaac-aeic.gc.ca/050/documents/p80101/136087E.pdf>). They also animated our request to federal Environment and Climate Change Minister Wilkinson that he designate the Tent Mountain Mine Redevelopment Project for a federal impact assessment under the *Impact Assessment Act* (<https://iaac-aeic.gc.ca/050/documents/p81436/138575E.pdf>).

Here, AWA looks critically instead at the future of metallurgical coal mining with a particular focus on anticipated changes in metallurgical coal demand and production. Given the climate change imperative and the seriousness with which the global steel industry appears to be taking that imperative, the future of metallurgical coal production is likely to be far less rosy than organizations such as the Coal Association of Canada suggest. Our future is likely to be one where less, not more, metallurgical coal is mined. In a future where less, rather than more, metallurgical coal will be used as the world grapples with climate change, the economic foundations of coal mining in Alberta may be very shaky. If the future of the metallurgical coal industry is darker as opposed to brighter, Warren Buffet’s advice seems especially appropriate now. Why would the people of Alberta want to allow metallurgical coal production today if it’s a declining sector whose health will face significant challenges in the coming decades?

## The Current/Recent Status of Metallurgical Coal Production in Alberta: Employment, Production, Royalties

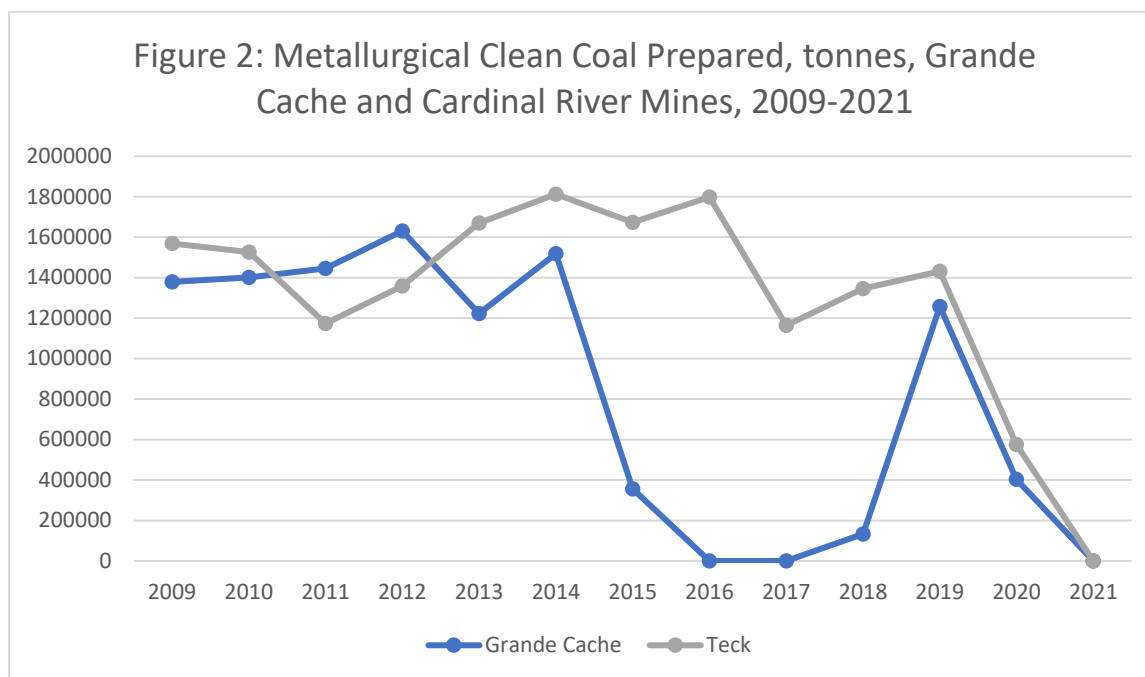
From today's vantage point, the best days of employment in the Alberta segment of Canada's metallurgical coal industry appear in the rearview mirror. Figure 1 presents Statistics Canada data on employment in the Alberta coal mining sector (thermal and metallurgical). From a peak of 2,985 jobs in 1998, employment dropped precipitously – by 69 percent – to just 925 jobs in 2004. The explosive increase in jobs seen in 2013 was only momentary. From that second peak of 2,605 jobs in 2013, the number of coal mining jobs settled back into the post-2004 range of 1,375 to 1,795. The trend since 2014 has been downward. In 2020, after the closure of Teck Resources Ltd.'s Cardinal River operations, only 1,380 people had jobs in the Alberta coal mining industry. The phase-out of coal fired electricity generation in Alberta likely will reduce the number of coal mining jobs further. The jobs total for 2020 was the lowest number of coal mining jobs reported by Statistics Canada since 2008. Significantly, Teck's



Source: Statistics Canada, *Labour statistics consistent with the System of National Accounts (SNA), by job category and industry*, (Table 36-10-0489-01)

closure plus the ongoing (now 13 months and counting) of CST Canada's Grande Cache mine (ostensibly shut due to COVID-19 in May 2020), means there are no metallurgical mines operating in Alberta. Any current Alberta jobs in metallurgical coal mining are found in administration, reclamation or care and maintenance operations – not in the actual mining of coal.

Figure 2 presents Alberta metallurgical coal production data from 2009 through to March 2021. The only two producing metallurgical coal mining operations in Alberta during this period were in Grande Cache and the Coal Branch south of Hinton. For most of this period, Grande Cache Coal operated the mining operations north of Grande Cache (Hong Kong-based CST purchased Grande Cache Coal in 2018). Teck Resources owned and operated the Cardinal River coal operations approximately 65 kilometres south of Hinton.



Source: Alberta, Alberta Energy Regulator, *ST26: Alberta Coal Industries, Monthly Statistics*.

The permanent closure of Teck's Cardinal River mine and the ongoing closure of the CST mine are circumstances the Coal Consultation Committee should consider carefully as it tries to determine whether metallurgical coal mining in Alberta can have a profitable future. Those closures speak to the state of the overseas markets that the companies who want to be Alberta's new metallurgical coal miners, companies with no track record at all as coal miners, will try to access.

The key message of these closures is this: the economics of the global coking coal market are responsible for the shuttering of those metallurgical coal mines. This is nothing new in Alberta. When Coleman Collieries ceased all operations in 1983 it did so because its coal couldn't compete in its Japanese market with coal from Australia and South Africa.<sup>1</sup>

Thanks to Teck's greater transparency, the importance of global market conditions is seen most clearly in the case of Cardinal River. Teck closed its Cardinal River operations despite having received Alberta Energy Regulator permission to continue mining there. Teck received the AER's regulatory approval in April 2019 to proceed with the Mackenzie Redcap project – a project that, according to Teck's filings with the Alberta Energy Regulator, would have extended the life of the Cheviot Mine operations for seven years to 2027.

Teck's reasons for abandoning the Mackenzie Redcap project were economic and focused on Teck's assessment of how Mackenzie Redcap coal would fare in the global coking coal market. The project was very affordable from the capital expenditure perspective but its operating costs were projected to be high. Donald Lindsay, Teck's President and CEO, characterized the project as a higher cost operation and suggested during an April 2019 conference call that Teck's board was wrestling with the issue of whether coking coal prices would stay high enough to ensure its profitability over its lifetime.

<sup>1</sup> "Era ends in Crowsnest: Alberta coal valley loses its last mine," *The Globe and Mail*, 1 November 1983.

The challenge for Mackenzie Redcap, as Lindsay described it, wasn't the quality or the desirability of its coal. He asserted the quality of Mackenzie Redcap coal was high and therefore its coal was a sought after product by Teck's customers. "It's certainly a product that our marketing people would really like to have as part of the overall portfolio," he said. "There's key customers who have a strong interest in the product and have had for years. But balancing that is just more coal on the market overall and the higher cost."<sup>2</sup> When Teck's Board abandoned Mackenzie Redcap it decided this higher cost operation faced too many risks in the global coking coal market. Teck has proceeded to "replace higher-cost production from our Cardinal River Operations with lower-cost production from our Elkview Operations."<sup>3</sup>

Teck should know something about the state of the global metallurgical coal market since it supplies the lion's share of Canadian metallurgical coal exports. In 2019, Teck sold 72.1 percent of the 34,675,000 tonnes of metallurgical coal Canada exported overseas.

The desirable quality of Mackenzie Redcap coal has been noted by other industry experts. Willem Langenberg, the co-author of a peer-reviewed article on coalification in the Cardinal River lands leased for coal mining, concludes that the coals in the Mackenzie Redcap portion of those leases had better metallurgical potential than the coals previously mined as part of Teck's operations.<sup>4</sup> Furthermore, with respect to the quality of the Mackenzie Redcap coking coals, Cornelis Kolijn regards them as "very comparable and on certain aspects superior to the Crowsnest Coals of Tent Mountain, Grassy Mt (looking at their 84% of Resource inferior Seams #2 and #4) and Chinook."<sup>5</sup>

Tragically for the residents of Grande Cache, the history of coking coal mining in that region also underlines the stiff international, economic headwinds miners there have faced for decades. Today, what little information there is to be found on CST Canada Coal Limited's website claims that mining "currently remains suspended due to the worldwide COVID-19 pandemic."<sup>6</sup> COVID-19 was blamed for shutting the mine down in May 2020. But, the emphasis then was placed on worker and community safety. In the company's words, it suspended operations "to ensure worker safety in accordance with applicable public health guidelines, and to prevent an outbreak of COVID-19 among the workforce at the mine and in the remote community of Grande Cache...."<sup>7</sup>

If worker safety prompted the May 2020 closure, it's not at all credible to assert it's that aspect of COVID-19 that has kept the CST mine in care and maintenance for the past 13 months. When the company says today it "will resume mining and processing operations when safe to do so" it's talking about CST's economic safety, not the safety of workers. Teck's 2020 annual report noted the significant drop in the company's realized coking coal selling price in 2020 relative to 2019 and 2018. COVID-19's impact on global coal markets was responsible for this drop, to US\$113 per tonne from US\$164 and US\$187 in the previous two years.<sup>8</sup> CST Canada's

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<sup>2</sup> Teck Resources, "Q1 2019 Financial Report Conference Call Transcript," <https://www.teck.com/media/Teck-Q1-2019-Financial-Report-Conference-Call-Transcript.pdf>, April 23, 2019.

<sup>3</sup> Teck Resources Ltd., *Forward Together: 2020 Annual Report*, 20. Teck's Elkview Operations are located in B.C.'s Elk Valley in southeastern B.C.

<sup>4</sup> Willem Langenberg, email correspondence with Ian Urquhart, May 30, 2021. See also C. Willem Langenberg, Wolfgang Kalkreuth, and Ken Holmes, "Components of syn- and post-deformational coalification in the Mountain Park area, west central Alberta," *Bulletin of Canadian Petroleum Geology*, Vol 46, no. 4 (December 1998), 564-575.

<sup>5</sup> Cornelis Kolijn, email correspondence with Ian Urquhart, May 30, 2021.

<sup>6</sup> CST Canada Coal Limited, <https://cstcoal.ca>.

<sup>7</sup> Dow Jones Institutional News, "HK Bourse: Announcement from Netmind Financial Holdings Ltd.," 13 May 2020.

<sup>8</sup> *Forward Together: 2020 Annual Report*, 20.

Grande Cache mine remains shuttered because global prices and markets haven't recovered enough to justify reopening the mine. It's disingenuous to suggest otherwise.

With respect to royalties, AWA believes it's fair to conclude that Alberta's coal royalty structure, like British Columbia's, makes minimal demands on metallurgical coal producers. Table 1 presents the respective royalty rates set for metallurgical coal mining in these two provinces. Although the rates are very similar, the first tier royalty rate in Alberta is less than the rate set in B.C. Alberta's second tier rate, on the other hand, is slightly higher than the rate in B.C.

In Alberta these two tiers are set according to whether a mine has reached "payout." This refers to the date, after a mine commences production, when its cumulative gross revenues equal its cumulative costs and allowances. The post-payout coal royalty rate in Alberta is one percent of mine mouth revenue plus 13 percent of net revenue. In B.C., a post-payout mine would pay whatever royalty generates the most revenue.

<b>Table 1: Coking Coal Royalty Rates in Alberta and British Columbia</b>		
	1st Tier (pre-payout in Alberta)	2nd Tier (post-payout in Alberta)
Alberta	1% of mine mouth revenue (MMR)	1% of MMR + 13% of net revenue
British Columbia	2% of net current proceeds	13% of net revenue
Mine mouth revenue equals a mine's gross revenues from sales minus permitted costs and allowances such as transporting coal to a port. Net current proceeds equals gross revenue minus current operating costs (excluding capital costs).		

Australia is "the dominant global supplier" of metallurgical coal.<sup>9</sup> The coal royalty rates in Alberta and B.C. are significantly lower than those in Queensland, Australia. Like Alberta's oil sands royalty structure, the State of Queensland coal royalty structure varies with the commodity price. In Queensland, the state royalty is seven percent of the value of coal if the average coal price is \$100 or less. The Queensland royalty rate is progressive in the sense that the percentage increases as the value of the coal increases. See Table 2 for the Queensland royalty rates (<https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/authorities-permits/payments/royalties/calculating/rates>).

<b>Table 2: Coal Royalty Rates, State of Queensland, Australia</b>	
<b>Average price per tonne for period</b>	<b>Rate</b>
Up to and including \$100	7%
Over \$100 and up to and including \$150	First \$100: 7% Balance: 12.5%
More than \$150	First \$100: 7% Next \$50: 12.5% Balance: 15%
Prices are in Australian dollars. On June 6, 2021 one Australian dollar was worth 93 cents Canadian.	

The data in Table 3 present the recent revenue contributions from coal royalties, Alberta's tourism levy, and, as a guide, the selling price Teck Resources realized for its Canadian

<sup>9</sup> International Energy Agency, *Coal 2020: Analysis and forecast to 2025*, (December 2020), 53. Australia had a 52 percent share of the global market in 2019, 59 percent if only seaborne coking coal exports were considered. Canada, with 10 percent of the world export market, was a very distant third.

metallurgical coal exports. The coal royalty data aggregate the royalties received from all of Alberta's thermal and metallurgical coal mines. Alberta's lenient royalty structure is a major contributor to the fact that, even when Teck's metallurgical coal realized export prices were above US\$ 200/tonne, coal royalties made a rather miniscule revenue contribution to the Alberta government. By comparison, the province's tourism levy, another minor contributor to provincial revenues, dwarfed coal royalties between 2008 and 2019.

<b>Table 3: Coal Royalty and Tourism Levy Revenue, by fiscal year, in millions of dollars; Teck Metallurgical Coal Realized Selling Price, in US\$ per tonne</b>			
	<b>Coal Royalty</b>	<b>Tourism Levy</b>	<b>Met. Coal Price</b>
2008/09	35.8	74	205
2009/10	30.9	60	157
2010/11	30.5	65	181
2011/12	29.1	73	257
2012/13	-2.7	82	193
2013/14	16.1	87	149
2014/15	15.8	91	115
2015/16	13.7	81	93
2016/17	26.2	78	115
2017/18	11.6	85	176
2018/19	9.8	90	187
2019/20	12.8	89	164

Sources: Alberta Energy, *Annual Report*, various years; Alberta, *Budget/Fiscal Plan*, various years; Teck Resources, *Annual Report*, various years. For the 2012/13 fiscal year Alberta Energy wrote: "Net revenue was negative \$2.7 million due to a \$16 million refund for production in the prior year." Teck's realized selling price are the average price per calendar year. For example, Teck's realized selling price for metallurgical coal in 2008 was US\$205/tonne.

One important economic dimension the Coal Policy Committee should consider is the economic contribution future metallurgical coal mining may make to the provincial treasury. Since Alberta's debate on the future of coal is focused largely on exploiting metallurgical coal deposits in the Rockies and Foothills AWA estimated the post-payout royalties Alberta collected from Teck Resources' Cardinal River operations. We estimated the royalties Teck paid to Alberta in 2016 and 2017.

We chose Teck and focused on these years for three reasons. First, while Alberta Energy's Coal and Mineral Development unit publishes royalty data, it doesn't publish the royalties paid by individual companies.<sup>10</sup> Second, there wouldn't be any royalties from Grande Cache coal during these years since the mine was not operating. Third, in 2016 and 2017 Westmoreland was required to report to the federal government the royalties it paid to Alberta for the production from its Coal Valley Mine.<sup>11</sup> Like Teck's Cardinal River operations, Westmoreland mined bituminous coal at Coal Valley. However, Coal Valley production was exported as thermal, not metallurgical, coal. By subtracting Coal Valley's royalty payments from the bituminous royalties Alberta collected in 2016 and 2017 we are left with a bituminous

<sup>10</sup> Alberta Energy, *Coal and Mineral Development in Alberta Year in Review*. These annual reports are found here: <https://open.alberta.ca/publications/2291-1553>

<sup>11</sup> Westmoreland Coal submitted annual reports in 2016 and 2017 under Canada's *Extractive Sector Transparency Measures Act*.



royalty total that should be solely attributable to Teck's Alberta operations.<sup>12</sup> It lets us approximate the royalties actually paid by one well-run, well-regarded, metallurgical coal producer.

In 2016, we estimate Teck's post-payout royalties amounted to \$10,112,650. Teck's Cardinal River operations produced 1,798,339 tonnes of metallurgical clean coal in 2016 (see Figure 2). Therefore, we estimate that Teck paid a royalty of approximately C\$5.62 per tonne of clean coal produced in 2016. In 2017, we estimate Teck paid \$10,085,563 in provincial royalties on the 1,163,663 tonnes of metallurgical clean coal production it reported to the Alberta Energy Regulator. In that year, we estimate Teck's per tonne metallurgical coal royalty at C\$8.67 per tonne. In 2016, Teck's average realized selling price for coking coal across all of its operations was US\$115 per tonne; in 2017 its coal fetched an average of \$176 per tonne.

AWA believes this analysis of the real royalties paid by a real metallurgical coal miner has important, damaging, implications for the credibility of the royalty payment promises coming from the Coal Association of Canada and Benga Mining Ltd. Both interests promise Albertans a pot of gold at the end of the metallurgical coal rainbow. Those claims need to be interrogated seriously.

During the Grassy Mountain Coal Project Joint Review Panel Hearing the Coal Association repeated Benga Mining's claim that the Grassy Mountain Mine would pay the provincial government over \$1.7 billion in royalties and taxes over the life of that mine.<sup>13</sup> With respect to royalties alone, Benga's royalty payments to the provincial government will vary, among other variables, according to the price of coking coal. Benga's environmental impact statement offered three benchmark coal prices (in U.S. dollars) for calculating royalties: \$100, \$140, and \$200 per tonne. Those benchmarks are in "real," inflation adjusted, 2019 dollars. With inflation, the nominal or current dollar value of these benchmarks will increase over time. As Grassy Mountain Hearing Commissioner Dean O'Gorman drew out of Benga Mining during the Joint Review Panel Hearing, if inflation averages two percent over the life of the mine, the \$140 benchmark price in 2046 would be roughly \$220 in 2046 current dollars. Table 4 presents Benga's estimates of the annual average in royalties it will pay over the 23-year life of the project.

<b>Table 4: Estimates of Benga's Average Annual Royalty Payments to Alberta, (millions of Canadian dollars)</b>			
	\$100 USD/tonne	\$140 USD/tonne	\$200 USD/tonne
Average Annual Royalty	6	30	65

Put another way, if \$140 USD was the average price Benga realized for Grassy Mountain coal over the life of the mine, the company asserts it will pay Alberta \$30 million annually in royalties. Throughout the hearing, Benga insisted on the reasonableness of a long-term benchmark price of \$140 USD/tonne for premium quality coking coal, the coal quality Benga insisted Grassy Mountain will deliver. In Budget 2021, Finance Minister Toews estimated that total provincial revenues for the 2021-22 fiscal year will be \$43.697 billion. He estimates

<sup>12</sup> The total bituminous coal production royalties paid by Westmoreland and Teck in 2016 and 2017 are reported in Alberta Energy, *Coal and Mineral Development in Alberta: 2018 Year in Review*, 12.

<sup>13</sup> Coal Association of Canada, *Grassy Mountain Coal Project Joint Review Panel Presentation*, (September 18, 2020), 10. <https://iaac-aeic.gc.ca/050/documents/p80101/136046E.pdf>

resource revenues in this fiscal year will total \$2.856 billion. By either measure, coal mining royalties promise to make only a very, very small contribution to provincial revenues.

Based on AWA's estimate of Teck's post-payout royalties in 2016 and 2017 we believe Benga's royalty promises are optimistic. In 2017 when Teck realized an average of US\$176 (US\$184 in 2019 dollars) for its coal across all its operations it paid a royalty of C\$8.67 per clean tonne of coal. In 2016 Teck's realized selling price was US\$115 (US\$122 in 2019 dollars) and we estimate the company paid a royalty of approximately C\$5.62 per tonne of clean coal.

Benga contends it will produce an average of 4.03 million tonnes of clean coal annually over the 23-year life of the Grassy Mountain mine.<sup>14</sup> If Benga can deliver this much clean coal annually then, based on Teck's post-payout per tonnage royalties, Benga's payments during its post-payout years would range between \$22.6 million and \$34.9 million per year if realized selling prices ranged between US\$122 to US\$184 (in 2019 dollars). Here it should be noted that Benga realizes the quality of its coal will not be as good as Teck coal. Mike Youl, Benga's coal quality expert, suggested during the Grassy Mountain Hearing that Teck's "premium coals are probably a little bit better than Grassy Mountain."<sup>15</sup> The benchmark prices listed in Table 4 are for premium quality coking coals, not for the lower quality, second-tier coking coals Grassy Mountain would produce.

Youl's suggestion supports Cornelis Kolijn's evidence that Grassy Mountain coal quality is inferior to Teck coal. Kolijn, a coal technical marketing manager for Teck's Elk Valley operations for 17 years, gave evidence that only 16 percent of the Grassy Mountain coal deposit is high quality hard coking coal. He felt that, for a time early in the mine's life, Grassy Mountain could produce a product that would sit just below the premium coking coal threshold. But, he felt it was much more likely for the mine to produce a second tier, hard coking coal. As such, Alberta coal will fetch a lower price than Teck coal from the Elk Valley. Grassy Mountain coal "will always sell at a significant discount from premium hard coking coal," concluded the Canadian Parks and Wilderness Society, "and that discount will increase over mine life."<sup>16</sup>

Another question with respect to royalties merits the Committee's attention. How long will it take new metallurgical coal mines to reach payout? The Teck royalty payments cited above were post-payout royalties. New metallurgical coal mines in Alberta may spend an uncertain number of years operating under the pre-payout regime – where only one percent of minemouth revenue is owed to the province as a royalty.

### **Metallurgical Coal Price, Production, Royalty Assumptions in a Changing World**

If there's one thing I've learned from studying the petroleum industry for more than twenty years, it's that an almost certain way to make yourself look foolish is to predict too confidently the future path of commodity prices. Commodity markets can change, do change, quickly and surprisingly. Few, if any, petroleum analysts at the turn of the century predicted that North Dakota crude oil production would skyrocket from 90,000 barrels per day in 2000 to 1,421,572 barrels per day in 2019. Few, if any, saw the boom that fracking created. Similarly, few, if any, talked seriously about peak oil demand until very recently.

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<sup>14</sup> Riversdale Resources, *Grassy Mountain Coal Project, Section A: Project Introduction*, A-23, (August 2016), <https://iaac-aeic.gc.ca/050/documents/p80101/115588E.pdf>.

<sup>15</sup> Canada Impact Assessment Agency, *Joint Review Panel Public Hearing: Volume 5*, 1069, (November 2, 2020). <https://iaac-aeic.gc.ca/050/documents/p80101/136586E.pdf>

<sup>16</sup> Canadian Parks and Wilderness Society, *Final Argument of The Canadian Parks and Wilderness Society, Southern Alberta Chapter*, (January 8, 2021), 8. <https://iaac-aeic.gc.ca/050/documents/p80101/137583E.pdf>



Given its mandate, AWA thinks the Committee has no choice but to look into the future of metallurgical coal markets and prices. To allude to Warren Buffet's quote again, your task is to look years, not minutes, down the road and recommend policy accordingly. Your task is to weigh what future markets for metallurgical coal, based on a balance of probabilities, will look like.

In doing that, AWA urges you to dismiss the future imagined by the Coal Association of Canada. During the Grassy Mountain Hearing the Association offered a positively glowing assessment of the future of coal production in Canada. Between 2019 and 2030 it predicted steelmaking coal production in Canada to skyrocket by more than 67 percent. It conjured a world where Canadian coking coal production will increase to more than 50 million tonnes a year from 30 million tonnes in 2019.

AWA is sure you expect a conservation organization, opposed to coal mining in the Eastern Slopes, to urge you to dismiss the Coal Association's position. But, if you're tempted to dismiss our view of the Coal Association's predictive powers, consider the two key, interconnected, reasons why we think the Coal Association's view shouldn't be taken seriously. The first focuses on other predictions. The second focuses on the world these alternative predictions believe awaits us 10 years, not 10 minutes, down the road.

AWA contends that the metallurgical coal production forecasts of the Canadian Energy Regulator and the International Energy Agency demand your attention. Neither of these organizations, unlike the Coal Association, have a self-interest in promoting coal production. In the 2020 edition of its *Canada's Energy Future* series, the CER notes that "(m)uch of Canada's metallurgical coal production is exported and future production trends are linked to global metallurgical coal demand and prices."<sup>17</sup> The report's Evolving Scenario projects that total metallurgical coal production will fall to 22 million tonnes in 2050. This is a 24 percent reduction in total production from the 2019 level. What is this "Evolving Scenario?" "The core premise of the scenario is that action to reduce the GHG intensity of our energy system continues to increase at a pace similar to recent history," the CER wrote, "in both Canada and the world."<sup>18</sup> The CER believes the future of coal will be influenced by two key uncertainties: prices/demand in global coal markets and climate policies. It's important to note that climate policies, in Canada and coal importing nations, "could have a significant impact on both Canadian thermal and metallurgical coal production."<sup>19</sup> It's not just thermal coal that generates significant amounts of greenhouse gas emissions.

Turning to the International Energy Agency, two reports are considered here. In the short-term, the IEA's *Coal 2020: Analysis and forecast to 2025* sees Canadian metallurgical coal exports falling slightly, by 2 million tonnes, from 2018 to 2025. It projects Canada's coking coal exports to be 31 million tonnes in 2025.<sup>20</sup> A much more troubling assessment of metallurgical coal production comes from the 2020 edition of IEA's annual *World Energy Outlook* series. The IEA is well-aware that many future energy scenarios are possible. Its 2020 outlook considered

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<sup>17</sup> Canadian Energy Regulator, *Canada's Energy Future 2020*, <https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2020/results/index.html>.

<sup>18</sup> *Canada's Energy Future 2020*, <https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2020/assumptions/index.html>.

<sup>19</sup> *Canada's Energy Future 2020*, <https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2020/results/index.html>. My emphasis.

<sup>20</sup> International Energy Agency, *Coal 2020: Analysis and forecast to 2025*, (Paris: International Energy Agency, 2020), 114.

four scenarios: Stated Policies, Delayed Recovery, Sustainable Development, and Net Zero Emissions by 2050. The Stated Policies Scenario regards 2021 as the year the world gains control over the COVID-19 pandemic and the global economy returns to pre-pandemic levels. “This scenario reflects all of today’s announced policy intentions and targets,” the IEA wrote, “insofar as they are backed up by detailed measures for their realization.”<sup>21</sup> In the Sustainable Development Scenario, “a surge in clean energy policies and investment puts the energy system on track to achieve sustainable energy objectives in full, including the Paris Agreement...”<sup>22</sup>

Neither of these scenarios is friendly to coking coal production. According to the more conservative Stated Policies Scenario, global coking coal production falls from 936 million tonnes in 2019 to 764 megatonnes in 2030. By 2040 this production will fall to 704 megatonnes, a 25 percent decline from the 2019 coking coal production level. Under the more ambitious Sustainable Development Scenario, these deep drops are even deeper. It sees coking coal production falling to 438 megatonnes in 2040, 53 percent lower than 2019.<sup>23</sup>

One of the shared beliefs in the reports of the Canadian Energy Regulator and the International Energy Agency concerns climate change. Both agencies believe addressing climate change will constrain our future use of fossil fuels. Such actions, planned and anticipated, will reduce the demand and production for metallurgical coal as well as thermal coal.

The Coal Association of Canada is blind to this change.

The World Steel Association, unlike its Canadian cousin, is an industry association that isn’t blind to how the world is changing because of the need to address climate change. Most notably, the WSA recently published *Climate change and the production of iron and steel*.<sup>24</sup> This paper opens by acknowledging the steelmaking industry’s significant contribution to global greenhouse gas emissions. In 2020, the direct GHG emissions of steel makers amounted to 2.6 billion tonnes or between seven and nine percent of global anthropogenic carbon dioxide emissions.<sup>25</sup> Significantly, the Association doesn’t reject the emissions reduction pathways outlined by the IEA. Instead, the Association discusses first, how efficiency improvements such as increased steel recycling can put the industry on a “low-carbon steel path.” New technologies such as substituting hydrogen for coking coal in the iron ore reduction process are also discussed in the paper. Government assistance likely will be sought to subsidize the adoption of new technologies since low-carbon steel will be more expensive to produce than steel from conventional blast-furnace operations.

The efficiency and technology options live together in the Electric Arc Furnace method of making steel. These furnaces melt down scrap steel and, according to the World Steel Association, use roughly 80 percent less coal to produce steel than the blast furnace method.<sup>26</sup> In China, a leading steel producer, the World Steel Association reports that, both in absolute and percentage terms, EAF steel production roughly doubled in only two years, from 2016 to 2018.

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<sup>21</sup> International Energy Agency, *World Energy Outlook 2020*, 17.

<sup>22</sup> *Ibid.*

<sup>23</sup> *Ibid.*, 336-337.

<sup>24</sup> World Steel Association, *Climate change and the production of iron and steel*, (2021).

<sup>25</sup> *Ibid.*, 3.

<sup>26</sup> World Steel Association, *Steel Facts*, (2018), 15. The 80 percent less figure comes from comparing the amounts of coal used in the two methods as outlined in the discussion of the two main routes to produce steel.  
[https://www.worldsteel.org/en/dam/jcr:ab8be93e-1d2f-4215-9143-4eba6808bf03/20190207\\_steelFacts.pdf](https://www.worldsteel.org/en/dam/jcr:ab8be93e-1d2f-4215-9143-4eba6808bf03/20190207_steelFacts.pdf).

As Table 5 illustrates, China and India, two increasingly important steel producers, increased their EAF steel production volumes dramatically between 2000 and 2018.<sup>27</sup> China's EAF production is 434 percent higher in 2018 than in 2000; India's 2018 EAF production was 521 percent higher than in 2000. Much of the increase in EAF production is coming from these two steel producing nations.

<b>Table 5: Electric Arc Furnace Crude Steel Production, thousand tonnes, 2000/2018</b>		
	<b>2000</b>	<b>2018</b>
United States	47,850	58,903
India	9,690	60,234
China	20,200	108,000
Source: World Steel Association		

The EAF is a steel-making technology that emits fewer greenhouse gas emissions than blast furnaces. Increasing its share of global steel production might help to reduce steel production's contribution to global emissions. Electric arc furnaces aren't a silver bullet in the climate change fight but they could become even more important in the steel industry as the world becomes more serious about addressing climate change in the next decade and beyond.

The research and development needed to adopt new steelmaking technologies such as hydrogen-based reduction processes already is taking place in steelmaking operations around the world. Mitsubishi Heavy Industries will soon complete the world's largest steel plant capable of realizing net-zero carbon dioxide emissions. It will use hydrogen instead of coking coal in the iron ore reduction process.<sup>28</sup> BHP Group, which counts iron ore and metallurgical coal in its natural resources businesses, has partnered with Chinese steelmaker Baowu Group to explore technologies, including hydrogen, to reduce the steelmaker's greenhouse gas emissions and coal use.<sup>29</sup>

Does treating climate change as a very serious global public policy challenge mean that metallurgical coal production will shrink to nothing overnight? Of course not. Metallurgical coal likely still will be important to steel production 10 or 20 years from now. But, given the analyses and positions of organizations such as the Canadian Energy Regulator, the International Energy Agency, and the World Steel Association AWA believes the balance of probabilities favours an industrial evolution where less, not more, metallurgical coal will be mined to make the steel vital to our well-being.

### **What About Reclamation?**

AWA firmly believes the "modern" coal policy sought by Minister Savage should be a "no" coal policy. But, if the Committee entertains the possibility of allowing metallurgical coal mining along the Eastern Slopes, AWA urges the Committee to recommend the development and adoption of a much stronger regime to govern reclamation than the current one.

<sup>27</sup> These calculations were made using the World Steel Association's online calculation tools at this World Steel Association website: [https://www.worldsteel.org/steel-by-topic/statistics/steel-data-viewer/P1\\_crude\\_steel\\_EF/CHN/IND/USA](https://www.worldsteel.org/steel-by-topic/statistics/steel-data-viewer/P1_crude_steel_EF/CHN/IND/USA).

<sup>28</sup> Azusa Kawakami, "Mitsubishi Heavy to build biggest zero-carbon steel plant," *Nikkei Asia*, 28 December 2020. <https://asia.nikkei.com/Spotlight/Environment/Climate-Change/Mitsubishi-Heavy-to-build-biggest-zero-carbon-steel-plant?fbclid=IwAR1FCuN9fps-eFuZ-YVdfU4cDSx6yClc-XCfkxqlE-UXhffvhFX3rT02xMo>

<sup>29</sup> Neil Hume, "BHP agrees low-carbon steel push with China's biggest producer," *Financial Times*, 6 November 2020.

Since 1999, more than 20 years ago now, Alberta's Office of the Auditor General (OAG) repeatedly has raised serious concerns and questions about the sufficiency of Alberta's mining reclamation regime. Those concerns centre both on program design and on whether provincial government agencies have the systems in place required to ensure that petroleum and mining companies provide the province with sufficient financial security to reclaim the lands they lease for mining. Why is this important to your coal policy consultation? As the OAG stated in its July 2015 report:

In the event that a mine operator cannot fulfill its reclamation obligations, and no other private operator assumes the liability, the province may have to pay a potentially substantial cost for this work to be completed. Thus, a robust and responsive system to calculate and collect security from mine operators is essential.<sup>30</sup>

The OAG returned to the sufficiency of this regime in its June 2021 report. Unfortunately, it didn't do so to congratulate Alberta Environment and Parks (AEP) and the Alberta Energy Regulator (AER) for implementing its recommendations. In 2015, the OAG was concerned the design of the Mine Financial Security Program (MFSP) overestimated the value of the assets companies use to calculate their financial obligations under the program. That concern was expressed then in the context of oil sands mines. However, the technological and market futures used in this AWA analysis suggest this issue – overestimating asset values – applies just as importantly to metallurgical coal mining.<sup>31</sup> Six years after the OAG's 2015 recommendation that AEP improve the MFSP design, the Auditor General rates the department's progress as "unsatisfactory."<sup>32</sup>

In 2015, the OAG also noted that the government provided an "insufficient level of audit verification." With the adoption of the MFSP in 2011, the government excused companies from the previous requirement to submit detailed reasons for the amount of financial security they provided. Of the 19 coal mines required to provide financial security in 2015, only two had been subject to detailed audits by provincial officials. One third party audit report had been started, but not completed. The OAG concluded the following:

There is a high degree of financial risk associated with coal mine operations due to the decline in coal prices. As a result, the entire coal sector elected to provide financial security for the reclamation of their mines. However, very little audit activity has been undertaken in the coal sector to ensure that the amount of financial security provided by the operators is adequate.<sup>33</sup>

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<sup>30</sup> Alberta, Office of the Auditor General, *Report of the Auditor General of Alberta, July 2015*, (Edmonton: 2015), 26.

<sup>31</sup> For example, in the oil sands mining context, the OAG wrote: "The resource asset valuation calculation does not reflect any risks associated with the future economic value of the reserves." *Ibid.*, 29. The relevant risks the OAG identified there – commodity price fluctuations, foreign exchange rate changes, technological change and regulatory change – apply to coal mining in a climate change constrained policy world as well.

<sup>32</sup> Alberta, Office of the Auditor General, *Report of the Auditor General of Alberta, June 2021*, (Edmonton: 2021), 29.

<sup>33</sup> Office of the Auditor General, *Report of the Auditor General of Alberta, July 2015*, 32. It should be noted that Benga Mining in its Final Argument to the Grassy Mountain Joint Review Panel would not commit to adopting the full security option. See Benga Mining Limited, *Final Argument*, (December 11, 2020), 68. <https://iaac-aeic.gc.ca/050/documents/p80101/137172E.pdf>.

The Auditor General's 2021 report offers readers a cautionary tale regarding the inadequacies of Alberta's coal mining reclamation regime. Smoky River Coal, near Grande Cache, went into receivership in 2000. Much of the mine site had not been cleaned up. In 2014, after some clean up had been completed, Environment and Parks transferred the responsibility for the site and the remaining \$1.7 million in security to the AER. However, AER hired a third-party assessor who estimated full remediation and reclamation of the site would cost approximately \$80 million. Today, AEP and the AER debate which government agency should pay for insufficiently-financed corporate reclamation duties.<sup>34</sup> Two points stand out here: the government didn't require sufficient financial guarantees to cover the mine site's reclamation and taxpayers now must pay to reclaim this site.

Hard questions need to be asked about the financial ability and willingness of the companies who aspire to mine metallurgical coal in the Rockies to fulfill whatever future reclamation responsibilities are associated with those aspirations. In part, these concerns arise from corporate structures where wealthy parent companies shield themselves from bearing liabilities incurred by their subsidiaries. The Grassy Mountain Coal Project is a case in point. Benga Mining, the project's proponent, is a Canadian limited liability company owned by Hancock Prospecting Pty Ltd., a private Australian company. Under this structure, Hancock cannot be held liable for reclamation costs if Benga cannot pay them. The multi-billion dollar Australian parent effectively is shielded from taking any of the responsibility for future environmental liabilities. All of the financial risks associated with Benga's environmental liabilities will be assumed by this junior mining company.<sup>35</sup> If Benga cannot honour them, the people of Alberta will be left to foot the bill.

With respect to financial ability, AWA is very concerned about the health of two publicly-traded companies holding leases in Category 2 and 4 lands in southwest Alberta. Montem Resources and Atrum Coal are penny stocks on the Australian Securities Exchange (ASX). On June 15, 2021 the combined market capitalization of these two firms was C\$45.8 million; the market capitalization of Teck Resources, Canada's premier metallurgical coal miner, was C\$11.7 BILLION.

Alberta is where Montem and Atrum hope to mine metallurgical coal. Montem has applied for a provincial environmental impact assessment for its Tent Mountain Redevelopment Project. AWA has commented separately on the Terms of Reference for that assessment and has requested that Environment and Climate Change Minister Wilkinson designate Tent Mountain for an impact assessment under Canada's *Impact Assessment Act*. Montem's financial weakness is underlined by several recent corporate developments and statements:

- Since Montem listed on the ASX on September 15, 2020, its market value has plunged 63 percent, to AUD\$0.092 from its listing price of AUD\$0.25.
- In November 2020, Montem was under contract to deliver a \$1.15 million lumpsum payment to Westshore Terminals. This fee is to reserve seaborne coal shipping capacity at Westshore's facilities on the Strait of Georgia. This contractual arrangement was renegotiated. Now the fee will be paid over four quarterly payments. The first installment reportedly was paid on October 28,

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<sup>34</sup> Office of the Auditor General, *Report of the Auditor General of Alberta, June 2021*, 19.

<sup>35</sup> Canada Impact Assessment Agency, *Joint Review Panel Public Hearing: Volume 5*, (November 2, 2020), 996-999. <https://iaac-aeic.gc.ca/050/documents/p80101/136586E.pdf>

2020. In February 2021, neither Montem nor Westshore Terminals would confirm to AWA if the second payment of C\$287,500 was paid.

- In January 2021, Montem renegotiated a second financial contract. This commitment was a land purchase agreement for a rail loading facility. That deal was supposed to close on January 4, 2021 with a payment of \$2,535,000 from Montem. It has now been extended, at an increased purchase price, to January 4, 2022.

Atrum Coal's financial circumstances arguably are even more dire:

- On February 8, 2021 Atrum's share price on the ASX was AUD\$0.25. On June 15, 2021 its last trade was at AUD\$0.047. It's fallen by 81 percent over this period.
- The company's balance sheet shows that it's rapidly burning through capital. At the end of the second Quarter of 2020 Atrum held \$17,636,000 in cash and cash equivalents. At the end of March 2021, Atrum's cash and cash equivalents position had shrunk to just \$4,914,000.
- The securities market, Atrum's main source of cash, has dried up. Atrum told the ASX in December 2020 it expected to raise \$20.6 million from selling 103 million share options. Reinstating the Coal Policy in February 2021 killed that deal; Atrum's underwriters terminated the agreement. Instead of raising more than \$20 million the sale of these options only raised \$183,000.
- Finally, on June 9, 2021 Treasury Services Group Pty Ltd ATF Nero Resource Fund sold all of the 850,000 shares it held in Atrum.<sup>36</sup>

There is nothing in Alberta legislation preventing cash-strapped companies that don't have any contracts for the coal they hope to mine from trying to get investor and government approval for their ambitions. But, the Committee should regard the financial weaknesses of those proposing to mine metallurgical coal in Alberta today as a big, red flag. Those weaknesses must encourage the government to strengthen substantially the financial security regime for coal mining in Alberta. This must occur if, as the OAG suggested in its June 2021 report, Alberta's environmental legislation truly is animated by the polluter pay principle. This principle "aims to ensure that those responsible for the pollution or disturbance clean it up to applicable environmental standards and pay for it."<sup>37</sup> Today's government will do a tremendous disservice to future generations of Albertans if it doesn't ensure the "robust and responsive" financial security system the OAG sought in 2015 is finally established.

## Conclusion

For AWA, to entertain metallurgical coal mining in Alberta demands we take Warren Buffet's advice and ask ourselves if this is an investment we want to hold ten years or more down the road. The conclusion we draw from the analyses used in this submission is that metallurgical coal mining isn't an attractive investment. It's an investment Alberta should want to exclude from the portfolio of industrial activities we have on our landscape 10 years and more

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<sup>36</sup> Australian Securities Exchange, "Notice of ceasing to be a substantial holder," June 10, 2022, [https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02384032-6A1036523?access\\_token=83ff96335c2d45a094df02a206a39ff4](https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02384032-6A1036523?access_token=83ff96335c2d45a094df02a206a39ff4)

<sup>37</sup> Office of the Auditor General, *Report of the Auditor General of Alberta, June 2021*, 5.



into the future. What should give this message even greater credence with the Coal Policy Committee is the fact that the future scenarios drawn on in AWA's submission are the conclusions of respected economic think tanks such as the International Energy Agency.

We will conclude this submission with another quote, one Committee members likely will remember. It came from former Premier Lougheed and he offered it in the context of oil sands development in Alberta. He said:

I think as an owner. When we were in government, I thought as an owner. The people of Alberta are the owner of the resource. Public policy in Alberta should reflect that ownership. We went through a number of years recently where the ownership was subjugated to the wishes of the petroleum industry, who are basically lessees. I'm hoping that will change, and that there will be a reaffirmation by the new Progressive Conservative government of its ownership position.<sup>38</sup>

If the provincial government proceeds to allow coal mining along the province's Eastern Slopes AWA believes the government will not be thinking as an owner who recognizes the economic (and environmental) risks associated with coal mining in the age of climate change action. We don't believe Alberta would be thinking of the many non-mining benefits those lands provide to the peoples of Alberta. To allow coal mining on our Eastern Slopes would be to subjugate the people's ownership of all the resources found there to the wishes of fledgling companies that have no track record as the miners they hope to become.

Sincerely,  
ALBERTA WILDERNESS ASSOCIATION



Dr. Ian Urquhart, Conservation Director

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<sup>38</sup> Adam Radwanski, "The people of Alberta are the owner of the resource'," *The Globe and Mail*, 7 June 2009.